

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 25 October 2000 (25.10.00)	
International application No. PCT/SE00/00544	Applicant's or agent's file reference SEL/UM 43079
International filing date (day/month/year) 20 March 2000 (20.03.00)	Priority date (day/month/year) 18 March 1999 (18.03.99)
Applicant EGNELL, Lars	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

02 October 2000 (02.10.00)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer R. E. Stoffel
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 12 JUL 2001

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Applicant's or agent's file reference SEL/UM 43079	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/SE00/00544	International filing date (day/month/year) 20.03.2000	Priority date (day/month/year) 18.03.1999
International Patent Classification (IPC) or national classification and IPC H04B 10/28, H04J 14/02		
Applicant QEYTON SYSTEMS AB et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 02.10.2000	Date of completion of this report 03.07.2001
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 08-667 72 88	Authorized officer Erik Veillas/EE Telephone No. 08-782 25 00

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SE00/00544

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement) under article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/ or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SE00/00544

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	<u>1-12</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>2-6, 8-12</u>	YES
	Claims	<u>1, 7</u>	NO
Industrial applicability (IA)	Claims	<u>1-12</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The claimed invention concerns a receiver transponder to be used in an optical add and drop node connected in a two-fiber bi-directional network. The receiver transponder contains one optoelectric converter for each reception direction and an electronic switch coupled to each optoelectric converter. This electric switch permits selecting a direction from which to receive channel information through a signal on its control input terminal. The selected signal can then be reshaped, cleaned from a supervisory channel, and sent to a client by a laser. The invention concerns also an optical network with a bi-directional ring structure, which contains such a receiver transponder in at least one of its optical add and drop nodes.

The International Search Report revealed the following documents:

D1: EP 0689309 A2

D2: EP 0668674 A2

D3: WO 9852314 A2

D4: *M. Ajmone Marsan et al*, "Daisy: a scalable all optical packet network with multifiber ring topology", 1998, Computer Networks and ISDN systems, volume 30.

Statement

The invention according to claims 1-12 is novel (N) and has industrial applicability (IA).

D1 shows a sender/receiver for a two fiber ring. The receiver part of the device comprises add and drop units, an opto-electrical converters for each reception direction and an electric switch which selects a signal from each of the two opto-electrical converters associated to each direction and transfers this selected signal to an output interface (se fig. 2, col 8 line 1-17).

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: V

A receiving control section replaces the switch in a particular embodiment (see col 9 line 12-35). This receiving control section controls which of the two possible signals will be selected. The receiving control section is considered to correspond to the electronic switch with its control input terminal in the claimed invention.

Time division multiplexing is used in D1 whereas the claimed invention concerns in priority wavelength division multiplexing. A node for performing wavelength division multiplexing in a bi-directional optical ring comprising optoelectrical converters and an electrical switch is disclosed in D2 (see col 3 line 41 - col 4 line 15, col 7 line 1-9, col 11 line 25-48 for reference).

Consequently, the invention according to claims 1 and 7 is considered to lack inventive step.

Claim 2 shows using an electronic reshaping circuit to reshape the signals from the electronic switch.

None of the cited documents suggest reshaping received signals in optical add/drop nodes.

The invention according to claims 2-6 and 8-12 is thus considered to involve an inventive step (IS).

D3 and D4 show the general state of the art and are not presented further here.